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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/783,585

02/19/2004

Herve Marche

034299-567

7714

7590

05/15/2006

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EXAMINER

GARCIA, ERNESTO

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 05/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,585

Applicant(s)

MARCHE, HERVE

Examiner

Ernesto Garcia

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-16 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

The drawings were received on February 23, 2006. These drawings are not acceptable because the vertical line drawn at the right end of the hinge pin 48' is not a proper representation of an isometric view of the longitudinal hole in the hinge pin 48'. Further, the splines provided in Figure 3 are not properly shown as those shown in Figures 1 and 2.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "36" has been used to designate both a suspended structure without intermediate parts 74 (Fig. 2) and another suspended structure with intermediate parts 74 (Fig. 3).

The drawings are objected to because the right end face of the pin 48 in Figures 1 and 2 should not be cross-hatched.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "70' " has been used to designate both plates without intermediate parts and projecting from a suspended structure (Fig. 2) and plates with intermediate parts 74 (Fig. 3).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

on paragraph 032 of the original specification, the description in lines 1 and 2 is inaccurate. Note that only one device 10 has been disclosed in Figure 1 and not devices 10. Also, note that Figure 3 shows a different device as compared to device 10 shown in Figure 1. Appropriate correction is required.

Claim Objections

Claims 1, 6, and 13 are objected to because of the following informalities:

regarding claim 1, "has" in line 9 should be --have--;

regarding claim 6, --about-- should be inserted after "rotatable" in line 2; and,

regarding claim 13, "circular" in line 1 should be deleted as the aperture has not been defined as being circular. Appropriate correction is required. For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

Claim Rejections - 35 USC § 112

Claims 6-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 6, it is unclear where the second aperture recited in line 7 is located, i.e., is this second aperture supposed to be in the second structure?

Regarding claims 7-15, the claims depend from claim 6 and therefore are indefinite.

Claim Rejections - 35 USC § 102

Claims 1, 2, 6-13, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Swerer, 1,900,081.

Regarding claim 1, Swerer discloses, in Figure 3, an articulate junction device between a suspended structure **3** and a load bearing structure **6**. The device comprises a hinge pin **9**, at least one first part **7**, and a second part **8**. The hinge pin **9** has a hinge pin axis **A9** (see marked-up attachment). The first part **7** is rotatable about a first axis **A7**. The second part **8** is rotatable about a second axis **A8**. The hinge pin **9** passes through the first part **7** and the second part **8**. The first axis **A7** and the second axis **A8** are parallel to each other and offset from each other and the hinge pin axis **A9**. The first part and the second part have one rotatable degree of freedom therebetween that is fixed.

Regarding claim 2, the rotation prevention means (the hexagonal sides of the hinge pin and the holes) are provided between the hinge pin and each of the first and second parts.

Regarding claim 6, Swerer discloses, in Figure 2, an assembly comprising a coupling member **9**, a first structure **3**, and a second structure **6**. The first structure **3** has a first circular member **7** rotatable in a first axis **A7**. The first circular member **7** has a first aperture **A5** configured to receive the coupling member **9**. The coupling member **9** is oriented along a third axis **A9** adjacent to the first axis **A7**. The second structure **6** coupled to the a first structure **3**. The second structure **6** is rotatable about a second axis **A8** adjacent to the first axis **A7** and the third axis **A9**. The second structure **6** has a second circular member **8** configured to receive the coupling member **9** in a second aperture **A10**. The first circular member **7** and the second circular member **8** are unable to rotate with respect to one another about the third axis **A9**.

Regarding claim 7, the first structure **3** is capable of rotating about at least one of the first axis **A7** and the second axis **A8**.

Regarding claim 8, the second structure **6** is capable of rotating about at least one of the first axis **A7** and the second axis **A8**.

Regarding claim 9, the first circular member **7** and the second circular member **8** are not independently moveable.

Regarding claim 10, the coupling member **9** is a circular hinge pin.

Regarding claim 11, the first aperture **A5** and the second aperture **A10** are circular.

Regarding claim 12, the circular hinge pin further comprises at least one protrusion extending from an outer surface to prevent rotation with the first circular member **7** and the second circular member **8**. Note that the circle is inside the hexagonal opening tangent to the walls of the opening.

Regarding claim 13, the aperture of at least one of the first circular member **7** and the second circular member **8** includes a protrusion extending from an inner surface.

Regarding claim 16, Swerer, discloses, in Figure 2, an assembly comprising a coupling member **9**, first means **7** for rotating about a first axis **A7**, and second means for rotating about a second axis **A8** adjacent to the first axis **A7** and a third axis. The first means has a first aperture **A5** configured to receive the coupling member **9** oriented along a third axis **A9** adjacent to the first axis. The second means has a second

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aperture **A10** to receive the coupling member. The first and second means for rotating are unable to rotate with respect to one another about the third axis.

Claims 6 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Coone, 4,225,264.

Regarding claim 6, Coone discloses, in Figure 5, an assembly comprising a coupling member **25**, a first structure **11**, and a second structure **12**. The first structure **11** has a first circular member **13** rotatable in a first axis **A4**. The first circular member **13** has a first aperture **21A** configured to receive the coupling member **25**. The coupling member **25** is oriented along a third axis **A6** adjacent to the first axis **A4**. The second structure **12** coupled to the a first structure **11**. The second structure **12** is rotatable about a second axis **A8** adjacent to the first axis **A4** and the third axis **A6**. The second structure **12** has a second circular member **14** configured to receive the coupling member **25** in a second aperture **21B**. The first circular member **13** and the second circular member **14** are unable to rotate with respect to one another about the third axis **A6** (note that once the circular members are bolted down, the circular members will not move).

Regarding claim 15, the first circular member **13** and the second circular member **14** include a spherical outer surface to define a ball joint connection with corresponding interface surfaces of the first structure **11** and the second structure **12**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swerer, 1,900,081, as applied to claims 1, 2, 6-13, and 16, and further in view of Chung, 6,484,363.

Regarding claim 3, Swerer, as discussed, fails to disclose the suspended structure further comprising two plates parallel to each other between which the load bearing structure is placed. Chung teaches in Figure 1, a suspended structure **12** further comprising two plates **20** parallel to each other defining a space therebetween as an alternative design to allow the load bearing structure to be pivotally hinged on the suspended structure. Therefore, as taught by Chung, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further comprise the suspended structure with two plates parallel to each other defining a space therebetween to allow the load bearing structure to pivot relative to the suspended structure.

Regarding claim 14, Swerer, as discussed, fails to disclose the first structure further comprises two plates parallel to each other defining a space therebetween. Chung teaches, in Figure 1, a first structure **12** further comprising two plates **20** parallel to each other defining a space therebetween as an alternative design to allow the second structure to be pivotally hinged on the first structure. Therefore, as taught by Chung, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further comprise the first structure with two plates parallel to each other defining a space therebetween to allow the second structure to pivot relative to the first structure.

Allowable Subject Matter

Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

regarding claim 4, the prior art of record does not disclose or suggest an articulated junction device comprising two first parts in two plates parallel to each other (claim 3, lines 2-3) of a suspended structure, and cooperating with the two plates of the

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suspended structure through spherical surfaces together defining a ball joint connection therebetween. The closest prior art, Coone, 4,225,264, teaches the ball joint connection in Figure 4; however, there is no motivation, absent applicant's own disclosure, to teach the suspended structure 11 or 12 comprising two plates parallel to each other since the suspended structure is a flange. Doane, 5,104,061, teaches two first parts 22,34; however, the axis of one of the parts 22 is coaxial or at an angle with respect to the axis of the hinge pin axis thus the axis will not be offset from the hinge pin axis (claim 1, lines 8-9); and,

regarding claim 5, this claim depends from claim 4.

Response to Arguments

Applicant's arguments with respect to claims 1-3 and 6-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-272-70837083. The examiner can normally be reached from 9:30-6:00. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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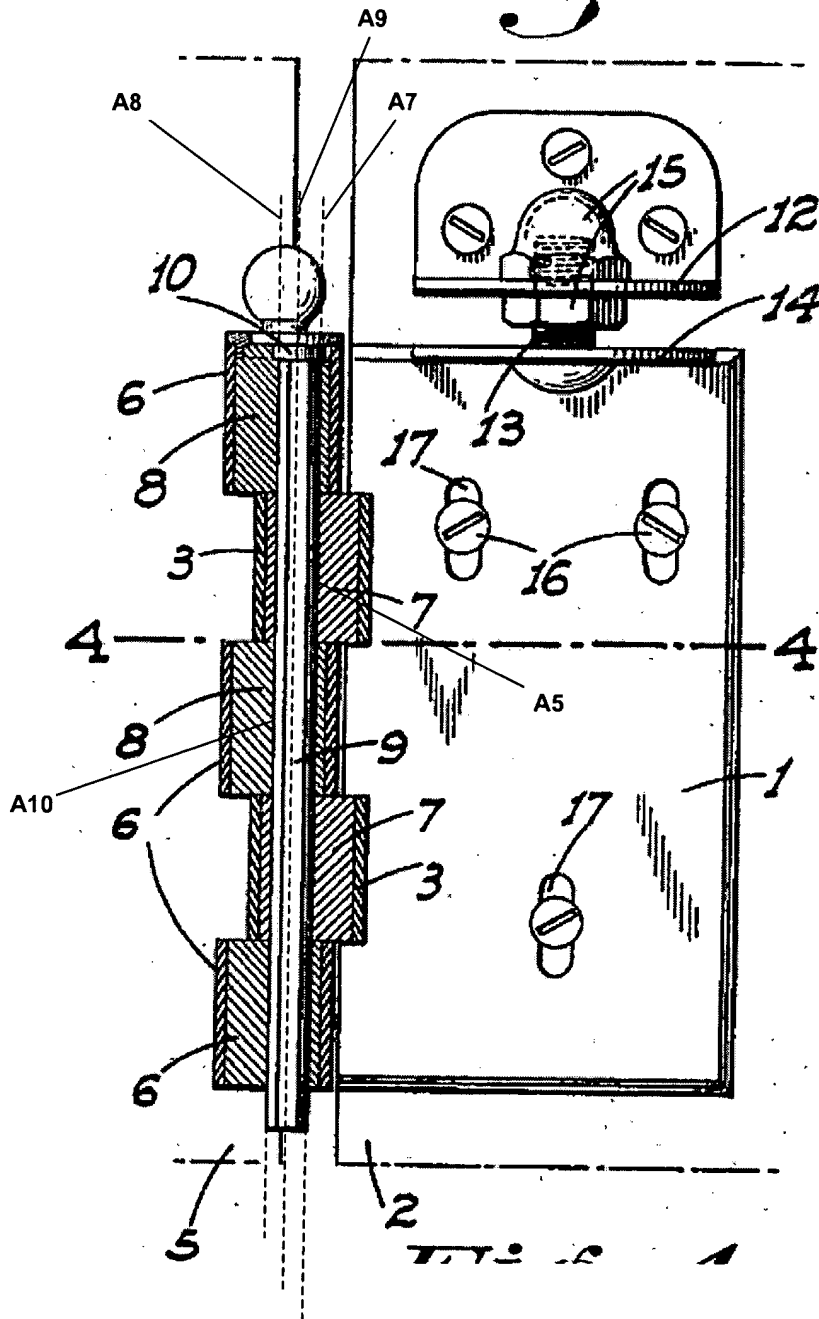
May 4, 2006

Attachments: one marked-up page of Swerer, 1,900,081
one marked-up page of Coone, 4,225,264.



DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

Fig. 2



Coone, 4,225,264

